






Shear angle Profile Tool Ø250 Z8

A03-110

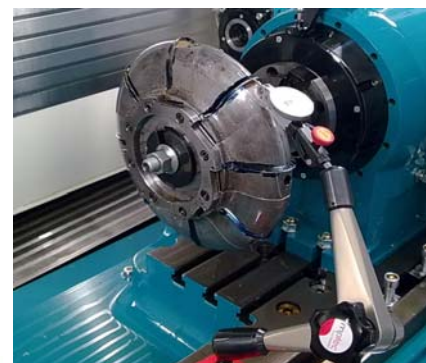
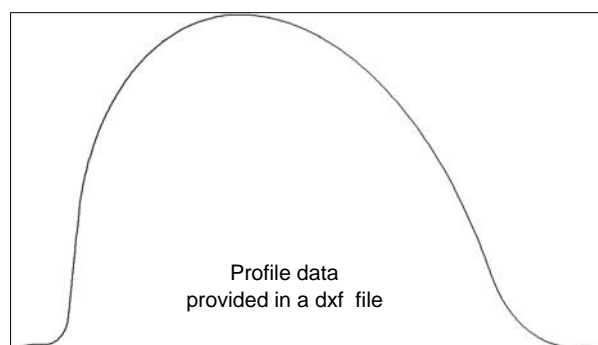
Profile grinding of a shear angle tool referred to a customized DXF-file. The tool is mounted left-turning. Holder ISO 50. Roughing stepsize 0.1mm. Fin grinding stepsize 0.01mm. The concentric runout after grinding was 0.004mm measured inside the machine. The tool is used to mill rotor screws for air compressors. To guarantee the leak tightness of the compressor, it is very important that the profile tolerance is in the µm-range.



1. Cycletime for profile grinding

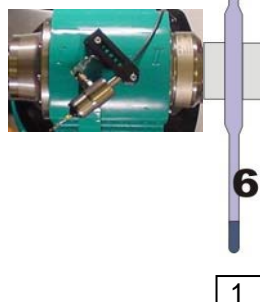
Workpiece: Diameter 250 mm, Z 8, Profile see below Material HSS			
Operations			
Feed [mm/Min]	200	60	60
Power [kW]		3	3
Cutting feed [m/s]		27	27
Used wheels			
Grinding time [s]	40	1150	1150
Total cycle time	39 Min		

The cycle times are indicative. Material to be ground, grinding wheels, coolants can influence the cycle times considerably.



2. Used Grinding Wheels

1	14F1 Ø200 R1.5
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3. Machine and Software Requirements

Machines: 5 axes CNC grinders : GEMINI DMR

Control: Fanuc 310i

Accessories:

Responsible engineer: STR / 11.08.2011

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J. SCHNEEBERGER Maschinen AG 4914 Roggwil Switzerland

Subsidiaries in: France, Deutschland, Italia, United States, UK, China

Coolant: Synthetic Oil, pressure 6 bar

Software: Quinto 5

